CLAIMS

1. A method of enhancing the intrinsic activity of an enzyme in a raw enzyme solution, said method comprising treating said raw enzyme solution with an effective amount of a purifying agent for a sufficient period of time, at an effective raw enzyme weight to purifying agent weight ratio to effect said enhancement and provide an enzyme solution of enhanced activity.
2. A method as defined in claim 1 wherein said purifying agent is activated carbon.
3. A method as defined in claim 1 further comprising removing said purifying agent from said enzyme solution of enhanced activity to provide a purified enzyme solution.
4. A method as defined in claim 1 comprising passing said raw enzyme solution through a column containing an effective amount of said purifying agent.
5. A method as defined in claim 3 wherein said purifying agent is removed by a method selected from the group consisting of filtration and centrifugation.
6. A method as defined in claim 1 wherein said raw enzyme solution is diluted with water to provide a diluted raw enzyme solution.
7. A method as defined in claim 1 wherein said raw enzyme solution is diluted with an aqueous buffer solution to provide a buffered diluted raw enzyme solution.
8. A method as claimed in claim 1 wherein said effective raw enzyme to purifying agent ratio by weight is not greater than 50:1.
9. A method as claimed in claim 8 wherein said ratio is not greater than 15.
10. A method as defined in claim 1 wherein said enzyme is selected from the group consisting of amylase, glucoamylase, cellulase, xylanase, and all other group 3 hydrolases.
11. A method as defined in claim 1 wherein said enzyme solution of enhanced activity has a spectrum selected from Far UV (CD) and UV visible spectra distinct from said raw enzyme solution.
12. A method as defined in claim 11 wherein said enzyme solution of enhanced activity shows a relative absorbance intensity lower than said raw enzyme solution, in the CD spectral range of 205-230nm.
13. A method as defined in claim 11 wherein said enzyme is alpha-amylase and said enzyme solution of enhanced activity has a Far UV (CD) spectrum

minimum ellipticity shifted by at least 1nm, from the raw enzyme solution, in the range between 205-230 nm.

14. A method as defined in claim 1 wherein said enzyme solution of enhanced activity has a UV-visible spectrum maximum peak at least 30 nm lower than said raw enzyme solution.

15. A method as defined in claim 1 wherein said enzyme is alpha-amylase and said enzyme solution of enhanced activity has a maximum spectral absorption peak over the range 340 to 360 nm.

16. A method as defined in claim 15 wherein said substrate is starch and said enzyme is alpha-amylase.

17. A method as defined in claim 1 wherein the enzyme solution of enhanced activity has a relatively less amount of organic entities having no enzymatic activity against starch, as determined by gel electrophoresis.

18. A method as defined in claim 12 wherein the ratio of A to B is at least 10 times greater than the ratio of A′ to B′, wherein A is the amount of enzyme in the enzyme solution of enhanced activity, B is the amount of said organic entities A′ is the amount of enzyme in said raw enzyme solution and B′ the amount of said organic entities in said raw enzyme solution.

19. An enzyme solution of enhanced activity when made by a method as defined in claim 1.

20. A method of treating a substrate susceptible to enzymatic reaction with an enzyme, said method comprising treating said substrate with an enzyme formulation of enhanced activity as defined in claim 19.